

POLAND

MIKUCKI, J., and GANCZARSKI, A., of the Chair and Research Office of Bacteriology, School of Medicine (Katedra i Zaklad Bakteriologii AM), Lodz. Doc. Dr. A. Ganczarski, Head.

"Amino Acid Requirements of Staphylococcus aureus Strains Sensitive and Resistant to Antibiotics"

Warsaw, Medycyna Doswiadczalna i Mikrobiologia, Vol 23, No 3, 1966, pp 193-202.

Abstract (Author's English summary modified): S. aureus strains 31-r, 209-P and Wood-46, both sensitive to antibiotics and with induced resistance to penicillin, streptomycin, chloramphenicol, oxytetracycline, erythromycin and neomycin were tested for their amino acid requirements. Qualitative and quantitative changes in amino acid requirements were found in the variants resistant to all the antibiotics listed with the exception of the erythromycin-resistant strain.

Contains 1 Table and 23 references (2 Polish, 18 Western and 3 Russian).

1/1

GANDA, B.K.

96. Narayanaswami, D., and Ganda, B. K., Rheology of adhesives. Part I, *Kolloid Z.* 135, 3, 140-150, Mar. 1954.

The flow behavior of two adhesives, casein-sodium hydroxide and resorcinol-formaldehyde, following their preparation, was studied. Two types of apparatus were used; a torsion viscometer and a penetrometer. To obtain the influence of adhesive-adherent interface several adherends, mainly wood, were used in appropriate part of apparatus. With casein glue, effects of variables such as component concentration, chemical additives, stirring, and temperature were determined. Typical viscosity-time curve of casein system was not monotonic but showed, with increasing time, a rise to sharp peak at about two hours, a decline to a low value, then a increasing flow. Suggested explanation was, briefly, chain building, chain degradation, and, finally, cross-linking and gel formation. B. M. Aslfox, USA.

GANDARINA, N.

Role of audits in the improvement of work of State Bank branches.  
Den. 1 kred. 19 no.3:62-65 Mr '61. (MIRA 14:3)

1. Starshiy revizor Leningradskoy gorodskoy kontory Gosbanka.  
(Leningrad--Banks and banking--Auditing and inspection)

NIKOL'SKAYA, M.M.; GARDEN, Y.G.; et al. / ...

Detection of sulfanilamide preparations by the method of  
thin-layer crystallization. Apt. dolo 14 no. 4:61-65 41-4g  
'65 (MIRA 19:1)

1. I Moskovskiy ordena lenina meditsinskii institut Irena  
I.M. Sechenova.

GANDEL'MAN, G.M.

"SSR"

496. The Compton scattering of a circularly polarized quantum by an electron with a given spin direction. G. M. GANDEL'MAN. *Zh. eksper. teor. Fiz.*, 25, No. 4 (1953), 1485-1493, 1493 (Russian).

The differential cross-sections in the range 0-180° for left and right circularly polarized quanta are worked out by the Feynman method. [cf. Absstr. 2089 (1949), 900 (1950) and 5696 (1951)]. The results are tabulated in a form convenient for comparison with experiment, for photon energies 1 and 4 mc<sup>2</sup>. The cross-sections are also plotted as functions of the angle of the recoil electron ( $\psi$ ) for the scattering by the electrons in magnetized Fe (assumed electron spin alignment given by 14.1 positive to 13.9 negative spins per Fe atom). They increase with decreasing  $\psi$ , the ratio of  $\sigma$  (spin || to photon momentum) to  $\sigma$  (antiparallel) at  $\psi = 180^\circ$  being ~10 for energy 1 mc<sup>2</sup> and ~100 for energy 4 mc<sup>2</sup>. W. J. SWANBERG

GANDEL'MAN, G.M.; ZEL'DOVICH, Ya.B.

~~Determination of the limit of applicability of quantum electrodynamics by measuring the magnetic moment of electrons.~~ Dokl.AN SSSR  
105 no.3:445-447 N '55. (MLRA 9:3)

1. Chlen-korrespondent AN SSSR (for Zel'dovich); 2. Institut  
khimicheskoy fiziki Akademii nauk SSSR.  
(Electrons) (Quantum theory)

*GANDERMAN, E.M.*

534,212.1 523,877  
 ✓ 6450. PRODUCTION OF SHOCK WAVES AT STELLAR  
 SURFACES. G.M. Gandel'man and D.A. Frank-Kamenetskii.  
 Dokl. Akad. Nauk SSSR, Vol. 107, No. 6, 811-14 (1959). In  
 Russian.  
 An application of gas dynamics to the conditions existing  
 in the outer layers of a star. J.M. Hough

*Institute of Physical Chemistry, AS USSR*

*probably should read "Chemical Physics"*

21(0), 24(5)

AUTHOR: Gandel'man, G. M.

SCV/56-36-2-35/63

TITLE: Correlation Between the Direction of an Internal Bremsstrahlung Quantum and the Circular Polarization of a  $\gamma$ -Quantum Emitted by an Excited Nucleus After a K-Capture (Korrelyatsiya mezhdu napravleniyem vnutrennego tormoznogo kvanta i krugovoy polarizatsiyev  $\gamma$ -kvanta, ispushchennogo возбужденным ядром после K-zakhvata)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 2, pp 585-587 (USSR)

ABSTRACT: Together with ordinary K-capture, a radiation K-capture is observed, which is frequently described as internal bremsstrahlung. In this connection a continuous  $\gamma$ -spectrum is formed up to a maximum energy  $W_0$ . If, on this occasion, a nucleus in an excited state is formed, circular polarization of the  $\gamma$ -quanta of the excited nucleus can be observed in coincidence with the direction in which the bremsstrahlung  $\gamma$ -quanta are emitted. This makes it possible to determine the spin of the excited states of nuclei formed in K-capture. As shown by reference 1, it is possible, in the case of electron

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Correlation Between the Direction of an Internal  
Bremsstrahlung Quantum and the Circular Polarization  
of a  $\gamma$ -Quantum Emitted by an Excited Nucleus After a K-Capture

SOV/56-36-2-35/63

$\beta$ -decay, to determine the spins of excited states by investigating the correlation of electrons and of the circular polarization of the excited nucleus. The author investigates the correlation between the  $\gamma$ -quantum from radiative K-capture and the circularly polarized  $\gamma$ -quantum from an excited nucleus. This correlation occurs exclusively in the case of nonconservation of parity in K-capture. The author derives a formula for this correlation and its dependence on the spins of the initial excited and final states of the nuclei. The author finally thanks Ya. B. Zel'dovich for his attention and his interest in this work. There are 2 references.

SUBMITTED: August 23, 1958

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24(5), 21(7)

AUTHORS:

Gandel'man, G. M., Mokhov, V. N.

SOV/56-36-5-33/76

TITLE:

The Radiation Capture of a Polarized  $\mu^-$ -Meson by Nuclei  
(Radiatsionnyy zakhvat polarizovannogo  $\mu^-$ -mezona yadrami)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki 1959, Vol 36,  
Nr 5, pp 1513-1516 (USSR)

ABSTRACT:

In the case of the radiation capture of a polarized  $\mu^-$ -meson (internal bremsstrahlung) with non-conservation of parity, there is a correlation between the muon spin direction and the direction of the departure of the  $\gamma$ -quantum; the latter is investigated by the present paper. The experimental investigation of the asymmetry of the flying off  $\gamma$ -quanta offers a possibility of forming a decision concerning the nature of muon-nucleus interaction. The problem has already been investigated with respect to muon capture by protons by employing the two-component neutrino theory; Gershteyn and Zel'dovich (Ref 2) showed that total depolarization of the muon occurs in hydrogen, which is explained as being a consequence of a skip effect on the protons. However, it also proves necessary to consider muon depolarization as a result of muon- and nuclear spin, and to investigate the two possible

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The Radiation Capture of a Polarized  $\mu$ -Meson by Nuclei

SOV/56-36-5-33/76

states  $F = J \pm 1/2$  separately (hyperfine splitting); this was done for the first time by Bernstein et al (Ref 3) for the normal muon capture by nuclei. Because of the conservation of spin in the system muon-nucleus, the nuclei themselves show partial polarization after depolarization of the mesons. Calculation of correlation in the case of the existence of a hyperfine structure is carried out for a nucleus with any spin  $J$ ; the  $\mu$ -meson polarized in the  $z$ -direction is assumed to be captured in the  $K$ -orbit of the nucleus. By means of the wave function describing the state of the meson formed, formulas are derived for the capture probability  $W_{F, F_z}$ . ( $F = J \pm 1/2$ ,  $F_z = M \pm 1/2$ ,

the projection of the total momentum on to the  $z$ -axis). For the correlation function  $\bar{M} = 1 + \beta \cos \theta$  then holds. ( $\theta$  = the angle between the original muon spin and the  $\mu$ -momentum). For  $\beta$  formulas are in the following derived, which represent  $C_A C_V$  and  $C_S C_T$  and also  $M$  and  $J$ . With  $J = 0$  the same results are

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obtained as in the case in which hyperfine splitting-up is not

The Radiation Capture of a Charged  $\mu$ -Meson by Nuclei

SOV/56-36-5-33/76

taken into account, i.e. according to the spin of the recoil nucleus  $J_f \beta$  as a function of the interaction constants:

$$J_f = 1 : \beta = \pm (|C_A|^2 - |C_T|^2) / (|C_A|^2 + |C_T|^2)$$

$$J_f = 0 : \beta = \pm (|C_V|^2 - |C_S|^2) / (|C_V|^2 + |C_S|^2)$$

The authors thank Ya. B. Zel'dovich for his interest and valuable advice. There are 7 references, 2 of which are Soviet.

SUBMITTED: November 25, 1958

Card 3/3

GANDEL'MAN, G.M.; PINAYEV, V.S.

Emission of neutrino pairs by electrons and its importance in  
stars. Zhur.eksp.i teor.fiz. 37 no.4:1072-1078 0 '59.

(MIRA 13:5)

(Electrons) (Stars)

83726

24.7000  
24.4100

8/056/60/038/004/019/048  
B006/B056

AUTHORS: Gandel'man, G. M., Pavlovskiy, Ye. N.

TITLE: The Quantum-mechanical Calculation of Pressure<sup>21</sup> in Solids

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,  
Vol. 38, No. 4, pp. 1176 - 1182

TEXT: One of the main problems in solid state physics<sup>21</sup> is the calculation of the cohesion energy in the normal state as well as the determination of the compressibility curves, i.e. the density-pressure-function. The quantum-theoretical method of calculating temperature and pressure not only furnishes equally good results as other methods (e.g. the Thomas-Fermi method), but, beyond that, it is characterized by a number of particular features which are due to the reconstruction of the atomic electron shells in compression. An investigation of pressure in a solid by quantum-mechanical means is very complicated, which is, above all, due to the fact that the system is not a close one. Pressure might be expressed by the quantum-mechanical stress-tensor, which, however, leads to difficulties because of the necessity of taking the electromagnetic

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The Quantum-mechanical Calculation of Pressure  
in Solids

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B006/B056

tensor into account. Thus, the quantum-mechanical pressure formula is not derived via the stress tensor, but is obtained as a generalization of the virial theorem. This formula (10) is applied to the model of the spherical cells of Wigner-Seitz and its application is discussed in great detail. The authors finally thank Ya. B. Zel'dovich, N. A. Dmitriyev, and V. N. Mokhov for advice and discussions. V. A. Fok is mentioned. There are 10 references: 4 Soviet, 2 Italian, 1 German, and 3 US. X

SUBMITTED: September 29, 1959

Card 2/2

GANDEL'MAN, G.M.

Leptonic decay of the  $\Lambda$ -hyperon and the probability for  $\mu_2$   
and  $K_{e3}$ -processes. Zhur. eksp. i teor. fiz. 40 no.6:1672  
1675 Je '61. (MIRA 14:8)

(Mesons)



24.7000

39665  
S/056/62/043/001/021/056  
B102/B108

AUTHOR: Gandel'man, G. M.

TITLE: Quantum-mechanical calculation of the equation of state of iron

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 1(7), 1962, 131 - 145

TEXT: D. A. Kirzhnits (ZhETF, 32, 115, 1957; 35, 1545, 1958) has improved the Thomas-Fermi model for compressed matter at  $T=0$  by introducing quantum and exchange corrections. Under normal conditions Kirzhnits' theory is no longer applicable. This is attributed to the fact that statistical methods neglect the band structure of metals. The quantum-mechanical theory of state developed here is based on the band model, the wave function of the electron system is expressed by single-electron wave functions, whose wave equations in a periodic self-consistent field are given by

$$\{-(\hbar^2/2m)\Delta + V(\vec{k}, \vec{r})\} \psi_n(\vec{k}, \vec{r}) = E_n(\vec{k}) \psi_n(\vec{k}, \vec{r}) \quad (1)$$

This equation which has to satisfy the Bloch condition  $\psi_n(\vec{k}, \vec{r} + \vec{R}) = e^{i\vec{k}\vec{R}} \psi_n(\vec{k}, \vec{r})$ , is solved

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B102/B108

Quantum-mechanical calculation ...

for calculating the most important characteristics of iron. The Thomas-Fermi potential of compressed atoms is chosen as the potential  $V(\vec{k}, \vec{r})$  acting on the electron. For the compressed-state calculations, the method of spherical cells (Wigner, Seitz, Phys. Rev. 43, 804, 1933; 48, 509, 1934) is used.  $E_n(\vec{k})$  characterizes the energy band structure of the crystal,  $\vec{n}$  is a lattice vector,  $\vec{k}$  - quasimomentum. With  $\psi = \sum_{l=0}^{\infty} \sum_{m=-l}^l A_{lm}(\vec{k}) f_l(E, r)$

$Y_{lm}(\vartheta, \varphi)$  as a solution of (1) with eight spherical harmonics the author determines the  $E(\vec{k})$  curves for several bands as dependent on the degree of filling and the band spacing for various degrees of compression ( $\epsilon$ ). The pressure - density relation is studied for  $T=0$ . For  $p = p_{kin} + p_{Coul}$

( $\equiv p_{kin} + p_{Coul}$ ) one has

$$p_{kin} = \int p_{kin}(q) \frac{d\Omega}{4\pi}, \quad p_{kin}(q) = T_{\mu\nu}(q) n_{\mu} n_{\nu} =$$

$$= \frac{\hbar^2}{4m} \left[ - \frac{\partial^2 \gamma(q|q)}{\partial n^2} - \frac{\partial^2 \gamma(q'|q)}{\partial n'^2} + 2 \frac{\partial^2 \gamma(q'|q)}{\partial n' \partial n} \right]_{q'=q}; \quad (15a)$$

$$p_{Coul} = \frac{1}{6\omega} \sum_{h \neq 0} F^{(0h)} R_{(0h)} \quad (15b)$$

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Quantum-mechanical calculation ...

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$q, q'$  are the particle coordinates,  $\Omega$  the crystal volume,  $\vec{r}_{(oh)}$  is the Coulomb force and  $R_{(oh)}$  the distance between the centers of the two adjacent cells 0 and h;  $\psi_n(q)$  is the probability for the n-th particle to be at the point q;  $\vec{n}$  is the normal to the cell surface. In terms of  $e^2/a_0^4 = 293 \cdot 10^6$  atm the kinetic pressure is

$$p_{kin} = \frac{1}{6\pi^2} \frac{1}{(a_0^{-1/3})^3} \sum_n \chi_n \int_{E_n(k) \leq E_F} k^2 dk \left( \sum_{l=M}^7 |A_{lM}^n(k)|^2 \{ |f_l^n(k, x_0)|^2 - [f_l^n(k, x_0) f_l^n(k, x_0)] \} \left[ \sum_{l=M}^7 |A_{lM}^n(k)|^2 \right]^{-1} \right) \quad (18)$$

(n - band number) and the exchange pressure (free electron gas) by  $p_{exch.}$

$$p_{corr} = -\frac{1}{4} \left( \frac{3}{\pi} \right)^{1/3} \frac{Z^{4/3}}{4} \frac{e^2}{a_0^4} \cdot \text{The correlation correction is}$$

$$p_{corr} = -\frac{0.288 e^2}{a_0^4 x_s^2 (x_s + 5.1)^2} = -\frac{6.72}{x_s^2 (x_s + 5.1)^2} \cdot 10^6 \text{ atm; } x_s = r_s/a_0,$$

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Quantum-mechanical calculation ...

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B102/B108

$4\pi r_s^{3/3} = (\alpha Z^{-1/3} a_0)^3 / \epsilon_{\text{rel}}$ . The p-values for various  $\epsilon$  are given numerically. Formulas are derived for thermal pressure and thermal electron energy. The values obtained for the electron specific heat in Fe agree with the abnormally high experimental value. There are 4 figures and 2 tables.

SUBMITTED: January 5, 1962

Card 4/4

GANDEL'MAN, G.M.; YERMACHENKO, V.M.; ZEL'DOVICH, Ya.B.

Nonmetallic nickel under high pressures. Zhur. eksp. i teor. fiz.  
44 no.1:386-387 Ja '63. (MIRA 16:5)

(Nickel)

(High-pressure research)

GANDEL'MAN, G.M.; YERMACHENKO, V.M.

Dielectric constant of crystals from the standpoint of quantum  
theory. Zhur. eksp. i teor. fiz. 45 no.3:522-531 S '63.  
(MIRA 16:10)

(Dielectric constant) (Quantum theory)

L 43746-65

EWI(l)/EWI(m)/EPF(c)/EPF(n)-2/EPR/T/ENP(t)/ENP(t)/ENA(c) Pf-4/  
 J3-4/Pu-4 IJP(c) JD/GG

ACCESSION NR: AP5006532

S/0056/65/048/002/0758/0796

AUTHOR: Gandel'man, G. M.

TITLE: Metallization of solid argon under compression

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 40, no. 2, 1965, 758-760

TOPIC TAGS: argon, solid argon, argon metallization, quantum mechanics

ABSTRACT: The behavior of various elements under compression is investigated theoretically by solving Hartree's equation in crystals. The method of such quantum mechanical calculations was described earlier by the author. In studying the behavior of electron bands of solid argon during compression, metallization could be observed at a compression of  $\delta = 3.2$  (initial density of solid argon  $\rho_0 = 1.9 \text{ gram/cm}^3$ ). In the normal state, argon is an ordinary elemental crystal whose binding energy is due to van der Waals forces. The proposed quantum mechanical method does not describe van der Waals forces. This method considers a very densely packed argon structure, the pressure being very low at  $\delta = 1$ . Actually, calculations show an extremely low pressure at  $\delta = 1$ , in the initial state. When the

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ACCESSION NR: AP5006532

compression is increased past this point, van der Waals forces are insignificant, and pressure calculations give a true picture of argon compression. Calculations give a pressure (in megabars) of  $p = 0.027$  at  $\delta = 1$ ;  $p = 0.324$  at  $\delta = 2$ ;  $p = 1.062$  at  $\delta = 3$  and  $p = 2.721$  at  $\delta = 4$ . When  $\delta < 3.2$ , the upper filled band is the  $3p$  shell, which is completely filled, containing 6 electrons, two in the  $3p_0$  sublevel and four in the  $3p_1$  sublevel. The  $3d$  band is higher and contains no electrons. At  $\delta > 3.2$ , the  $3d$  band lies below the  $3p$  band and we have argon in the metal state with an empty  $3d_2$  sublevel. The pressure at the transition point  $\delta = 3.2$  is 1.29 megabars. Orig. art. has: 2 figures.

ASSOCIATION: none


SUBMITTED: 31Oct64

ENCL: 00

SUB CODE: GP, SS

NO REF SOV: 001

OTHER: 001

  
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L 42813-66 EWT(1)/EWT(m)/ENP(w)/I/ENP(t)/ETI IUP(c) JE/JO/ES/JH

ACC NR: AP6024874

SOURCE CODE: UR/0056/66/051/001/0147/0155

AUTHOR: Gandel'man, G. M.

ORG: none

TITLE: <sup>2/</sup> The quantum-mechanical theory of the equation of state of <sup>27</sup> potassium, <sup>27</sup> aluminum,  
& iron <sup>77</sup> <sup>76</sup> <sup>B</sup>

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 1, 1966, 147-155

TOPIC TAGS: quantum mechanics, potassium, aluminum, iron, metal physical property,  
equation of state, quantum theory, *electron*

ABSTRACT: The purpose of the present work is to make a detailed exposition of the results<sup>27</sup> obtained recently on the variation of the nature of electron bands of Al, Fe, K, and solid Cl, with a variation in density. The procedure used was modified in order to find the solution to the Hartree equation for single-electron wave functions in a crystal in the Wigner-Seitz approximation. The influence of exchange on the wave functions and the potential were not taken into account, but exchange was accounted for approximately in the pressure calculations. A detailed analysis is presented for the results of the calculation of cold pressure and a comparison is made with the data of statistical theory in which quantum corrections are taken into

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ACC NR: AP6024874

account. Data are presented for the electron specific heat and the Grunaisen coefficient of electrons ( $\gamma_e$ ) calculated for K, Al, and Fe. A considerable rearrangement of the electron bands in Al due to compression is established theoretically; this rearrangement leads to the appearance of a region of negative  $\gamma_e$ . An energy overlapping of the 4s and 3d bands in K due to compression is observed; this leads to a phase transition of the first kind in the region of negative  $\gamma_e$ . The quantum/mechanical theory presented provides an opportunity of predicting many properties of metals in a compressed state. The method already makes it possible to calculate electron rearrangements due to compression, loss of metallic properties in a specific range of pressures, as well as to calculate the thermal energy and the thermal pressure of electrons. Orig. art. has: 2 tables, and 6 figures. [26]

SUB CODE: 11,20/ SUBM DATE: 28Feb66/ ORIG REF: 008/ OTH REF: 001/ ATD PRESS:

5067

Card 2/2

KORNIYENKO, T.S.; GANDEL'MAN, Kh.K.

Effect of surface-active substances on the kinetics of  
extraction from drops. Uch.sap.Kish.un. 68:34-37 '63  
[cover '64]. (MIRA 18:12)

GANDEL'MAN, N.Ya.

Clinical properties of certain forms of viral neuroinfections.  
Nevropat.psykhiat., Moskva 20 no.2:26-29 Mar-Apr 1951. (GIML 20:9)

1. Of the Clinic for Nervous Diseases (Head--Honored Worker in Science Prof. I.Ya. Razdol'skiy, Corresponding Member of the Academy of Medical Sciences USSR), Leningrad Sanitary-Hygienic Medical Institute (Director--Prof. D.A. Zhdanov, Corresponding Member of the Academy of Medical Sciences USSR).

Noticed that when incidence of acute serous meningitis increases, there is also increase of herpes zoster. Describes observed cases where both diseases were present and speculates on causal connection. Describes symptoms of primary polyradiculoneuritis, meningoencephalites, and encephalomyelites and states that these diseases took more rapid course in 1936-1939 than now. Asks whether there has been change in properties of causative factor or modification or resistance of patients due to the war.

GANDEL'MAN, O. [Handel'man, O.], inzh.

Wide poultry house for laying hens and for fattening chicks.  
Sil'. bud. ll no.5:6-9 My '61. (MIRA 14:6)  
(Ukraine—Poultry houses and equipment)

GANDEL'MAN, TS.S

Summer planting of potatoes as a means of combating potato wart.  
Sbor.nauch.trud.Inst.biol.AN BSSR no.1:177-182 '50. (MLRA 9:1)  
(Potato wart)

Also published in Sad i Ogorod, No 6, 1950, pp. 61-64.

USSR/Plant Diseases. Diseases of Cultivated Plants

G-3

Abstr Jour : Ref Zhur - Biol., No 22, 1958, No 21900

Author : Gandel'man Ts.S.

Inst : -

Title : Agrotechny in Controlling Potato Canker

Orig Pub : Kartoffel', 1958, No 2, 44-46

Abstract : No abstract

Card : 1/1

GANDEL'MAN, TS.S.

Damage caused by potato wart and its control. Zashch.rast.ot vred.  
i bol. 3 no.6:45-47 N-D ' 58. (MIRA 11:12)

1. Direktor Minskoy stantsii Vsesoyuznogo instituta zashchity  
rasteniy.

(Potato wart)



LUR'YE, M. YE., GANDEL'MAN, YA. I., DZYUBENKO, YU. M.

Fishing Boats

Refrigerated collector - transport vessels with mechanical refrigeration. Ryb. khoz. 28  
no. 8, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 195<sup>6</sup>, Unclassified.  
2

CANDEL'SMAN, A. L.

Candel'sman, A. L., Boykova, O. S. and Zon'kovich, K. F.  
"Therapeutic gymnastics in scolioses arising from faults in  
the development of the spine", Sbornik nauch. trudov  
(M-vo zdravookhraneniya RSFSR. Resp. nauch.-issled in-t  
vosstanovleniya trudosposobnosti fiz. defektivnykh detey  
im. prof. Tur era), Leningrad, 1948, p. 407-27.

SO: U - 3042, 11 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 7, 1949).

GANDEL'SMAN A.B.

USSR/Human and Animal Physiology - Nerve and Muscle Physiology. T-9

Abs Jour : Ref Zhur - Biol., No 18, 1958, 34492

Author : Gandel'sman, A.B., Golovinskaya, N.V.

Inst : Leningrad Medical Institute of Sanitary Hygiene and  
Scientific Research Institute of Child Orthopedics.

Title : Reorientation of Motor Functions after Myo- and Tenoplasty.

Orig Pub : Tr. Leningr. san.-gigien. med. in-ta i in-ta detsk. ortoped.  
in-ta, 1956, 29, 53-63.

Abstract : In children suffering from residual symptoms of poliomyelitis, muscular motor chronaxy and muscular "static" tonus in various positions of the body were studied. The observations were made through a window cut into the plaster cast above the myogaster at various times after the operation. The maximum success which could be achieved in training the children who wore plaster casts, consisted in

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USSR/Human and Animal Physiology - Nerve and Muscle Physiology.

T-9

Abs Jour : Ref Zhur - Biol., No 18, 1958, 84492

reorienting the child's evaluation of his motor possibilities, as well as in training him to acquire the ability to voluntarily activate his muscle with the grafted tendon. After the state of immobilization was terminated, considerable and long lasting motor deviations were observed. Despite the fact that old physiological connections (before tenoplasty) were of exceptional stability, the children were remarkably successful in forming new antagonistic muscular correlations when they moved their lower extremities after 3-5 months following the operation. Perfect stabilization of motor habits developed on the basis of the cerebral cortex's regulative ability which became enriched and perfected. Training methods which aim to achieve reorientation of motor functions after tenoplasty has taken place, are described.

Card 2/2

CANDEL'SMAN, A.B.; VERKHALO, Yu.N.

Chronospheroelectroreflexometer. Vop.psikhol. 6 no.2:  
142-146 Mr-Ap '60. (MIRA 13:7)

1. Gosudarstvennyy ordena Lenina i ordena Krasnogo znameni  
institut fizicheskoy kul'tury im. P.F.Lesgafta, Leningrad.  
(Psychological apparatus)

GANDEL'SMAN, A.B.; GRACHEVA, R.P.; PROKOPOVICH, N.B.

Human adaptation to hypoxemia during muscular activity. Fiziol.  
Zhur. 46 no. 7:851-859 J1 '60. (MIRA 13:8)

1. From the P.F. Lesgaft Institute of Physical Culture, Leningrad.  
(ANOXEMIA) (EXERCISE)

BOYKOVA, O.S., metodist lechegnoy fizicheskoy kul'tury; BORTFEL'D, S.A.,  
kand. ped. nauk; GANDEL'SMAN, A.B., prof., doktor med. nauk;  
GOLOVINSKAYA, N.V., kand. biol. nauk; GONCHAROVA, M.N., prof.,  
doktor med. nauk; MIRZOYEVA, I.I., red.; KHARASH, G.A., tekhn.  
red.

[Exercise therapy in the pediatric orthopedic clinic] Lecheb-  
naia fizicheskaya kul'tura v detskoj ortopedicheskoi klinike.  
Leningrad, Medgiz, 1961. 191 p. (MIRA 15:4)  
(EXERCISE THERAPY) (ORTHOPEDIC NURSING)

AID Nr. 997-6 25 June

AN INTEROREFLEXOMETER (USSR)

Gandel'sman, A. B., and Yu. N. Verkhalo. IN: Konferentsiya po metodam fiziologicheskikh issledovaniy cheloveka. Materialy. (Materials of the conference on methods of investigating human physiology). Moskva, 1962. 46-47.  
S/926/62/000/000/001/004

An instrument has been designed at the State Institute of Physical Culture imeni P. F. Lesgaft for the exact measurement of human reactions to various stimuli acting on the vascular chemoreceptors, and for determining the capacity for subjective (secondary signal) evaluation of changes in the gas content of the blood during various activities. This is accomplished by means of a closed breathing system in which the composition and pressure of the air respired can be exactly controlled. The device consists of a closed volume with a mixing pump, tanks of gases, gas flowmeters, CO<sub>2</sub> and O<sub>2</sub> detectors, elements for measuring oxygen blood level, and other components, including

Card 1/2



AID Nr. 997-6 25 June

AN INTEROREFLEXOMETER [Cont'd]

s/926/62/000/000/001/004

autorecorders, and permits exact time recording of changes in the composition of the air in the closed volume and changes in the blood of the experimental subject. Exact quantitative measurement of responses to stimulation of various interceptors makes possible scientific analysis of the process of the nervous regulation of the functions of internal gas metabolism in humans, and may supply information having great practical importance to the design of equipment for underwater swimming, mountain climbing, pressure chamber training, and the like, and in ascertaining the preparedness of a given subject for intensive and protracted muscular activity.

[DMP]

Card 2/2

39235

S/247/62/012/002/002/004

1015/1215

AUTHOR: Gandel'sman, A. B. and Prokopovich, N. B.

TITLE: Perfection of interoceptive analysis during acute hypoxemia and hypercapnia in man

PERIODICAL: Zhurnal vysshey nervnoy deyatel'nosoti, v. 12, no. 2, 1962, 223-228

TEXT: Three hundred experiments were carried out on seventeen long-distance runners. Perfection of the acuteness of inner sensation during the development of hypoxemia and hypercapnia was established. The better-trained runners showed a more rapid and complete perfection of self-appraisal. Special training in self-appraisal resulted in similar perfection in untrained healthy individuals. The conclusions are: interoceptive analysis and motor analysis can be improved in training; training can bring about a high degree of perfection of the interoceptive (chemoreceptive-vascular) analyzer; it is possible to improve interoceptive analysis experimentally, in a closed space and at rest without motor training; the perfection of interoceptive analyzers might be an important factor in the conscious rational distribution (self-regulation) of vital loads in men, and prevent their over-strain. There are 4 figures.

ASSOCIATION: Kafedra fiziologii Instituta fizicheskoy kul'tury im. P. F. Lesgafta (Chair of Physiology, Institute of Physical Culture im. Lesgaft)

SUBMITTED: March 27, 1961

Card 1/1

GANDEL'SMAN, A.B.; PROKOPOVICH, N.B.

Improved interoceptive analysis in acute hypoxemia and hypercapnia  
in man. Zhur. vys. nerv. deiat. 12 no.2:223-228 Mr-Apr '62.

(MIRA 17:12)

1. Kafedra fiziologii Instituta fizicheskoy kul'tury imeni P.F.  
Lesgafta, Leningrad.

GANDEL'SMAN, A.B., prof. (Leningrad, Kirovskiy prospekt, d.26/30, kv.25)

Concerning the article "On the concepts of 'postural disorders' and 'scoliosis' in children." Ortop. trauma. i protez. 26 no.6:80-81 Je '65. (MIRA 18:8)

1. Iz Instituta fizicheskoy kul'tury imeni P.F. Lesgafta.

ACC NR: AP7009096

SOURCE CODE: UR/0413/67/000/003/0070/0070

INVENTOR: Gandel'sman, A. B.; Kreytser, A. G.; Prokopovich, N. B.

ORG: None

TITLE: An oximeter. Class 30, No. 191044

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1967, 70

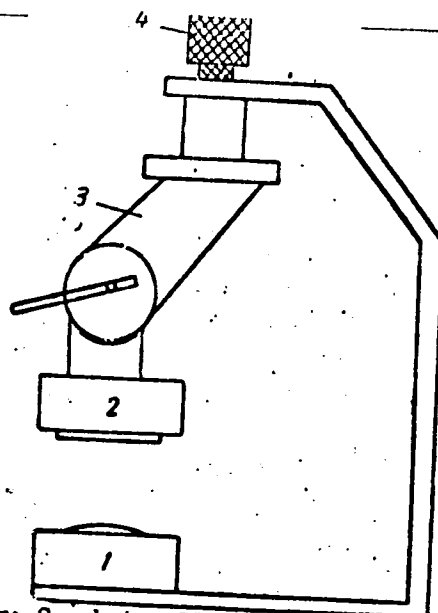
TOPIC TAGS: oximeter, medical laboratory instrument

ABSTRACT: This Author's Certificate introduces an oximeter containing an illuminator connected to a photocell. To increase convenience in selecting the optimum pressure to be applied between the fingers when measuring hypoximic displacement in the hand, the instrument is equipped with an adjustment screw and a hinge is used for interconnection between the photocell and illuminator.

Card 1/2

UDC: 615.47:612.127.2-087

ACC NR: AP7009096



1—illuminator; 2—photocell; 3—hinge; 4—adjustment screw

SUB CODE: 06/ SUBM DATE: 27Dec63

Card 2/2

GANDEL'SMAN, A. F.

Phase I

TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 290 - I

BOOK

Call No. TJ265.T4

Authors: GUKHMAN, A., Prof. Dr. of Phys. Sc.; ILYUKHIN, N. V., Kand of Eng. Sc.;  
GANDEL'SMAN, A. F., Eng; and NAURITS, L. N., Eng.

Full Title: EXPERIMENTAL STUDY OF HEAT EXCHANGE AND RESISTANCE IN SUBSONIC REGION

Transliterated Title: Eksperimental'noe issledovanie teolookhmena i soprotivleniya  
b dozvukovoy oblasti

Publishing Data

Originating Agency: Ministry of Heavy Machine Building Industry. (Glavkotturboprom).  
Central Scientific Institute on Boilers and Turbines. (TsKTI).  
This is an article from Teploperedacha i aerogidrodinamika.  
(Heat Transmission and Aero-hydrodynamics), book 21, #5, pp. 5-58

Publishing House: State Scientific and Technical Publishing House of Literature  
on Machine Building.

Date: 1951

No. of copies: 2,000

Editorial Staff

Editor: Prof. Gukhman, A. A., Dr. Phys.-Math.Sci. Tech. Ed.: None

Editor-in-Chief: Golovin, S. Ya., Eng. Appraisers: None

Text Data

Coverage: The authors describe a systematic study of heat exchange in gas moving  
at subsonic speed. Experimental data are incorporated with the results  
of other investigators to form a general hydrodynamic theory of heat  
exchange based on dimensional analysis and the use of different criteria  
1/2

Ekspperimental'noe issledovanie teploobmena i soprotivleniya b  
dozvukovoy oblasti

AID 290 - 1

Nu, Re, Pe, etc. 21 charts, 15 drawings and 7 tables.

The article presents methods of solution of those problems different  
from those usually given in American literature.

Purpose: The book is intended for workers in scientific research institutions and  
for designing engineers in the field of heat installation.

Facilities: The article is a continuation of a series of other articles on the  
same subject published in the periodicals of the Central Scientific  
Institute for Boilers and Turbines (TsKTI) and of the All-Union  
Heat Engineering Inst. (VTI)

No. of Russian References: 7 (1946-49)

Available: Library of Congress



GANDEL'SMAN, A. F., NAURITS, L. N., GUKHMAN, A. A. and ILYUKHIN, N. V.

"Study of Local Values of the Resistance Coefficient in the Subsonic Region of Flow" MO Ts KTI (1952)

GANDELSMAN, A. F.

USSR/Physics - Thermoelements

Feb 52

"Investigation of Thermoelements as Temperature Meters in a Gas Flow at High Velocity," A. F. Gandel'sman, N. V. Ilyukhin, L. N. Naurits.

"Zhur Tekh Fiz" Vol XXII, No 2, pp 268-276

Analyzes complex processes of interaction of gas flow with solid body occurring when thermoelements are used to measure temp of gas flowing at high speed. Problem requires further investigation. Indebted to Prof A. A. Gukhman. Received 4 Mar 51.

209T106

5280\* Study of the Coefficient of Resistance in the Case of Flow at Near-Sonic Velocity. Issledovanie koefitsienta soprotivleniia pri techenii s okolozvukovoi skorost'iu. I-II. (Russian.) A. F. Gandel'sman, A. A. Gukhman, N. V. Il'ikhin, and L. N. Naumov. Zhurnal Tekhnicheskoi Fiziki, v. 24, no. 12, Dec. 1954, p. 2221-2249. Experimental data and equations. Graphs, tables, diagrams. 10 ref.

Aerodynamics

GANDEL'SMAN, A. F.

Subject : USSR/Engineering AID P - 1243

Card 1/1 Pub. 110-a - 4/17

Authors : Gandel'sman, A. F., Eng., Gukhman, Doc. of Phys.-Math.  
Sci. and ~~Il'yukhin~~, N. V., Kand. of Tech. Sci.

Title : Study of measurement of the resistance coefficient of a  
flow of gas moving with supersonic velocity

Periodical : Teploenergetika, 1, 17-23, Ja 1955

Abstract : Results are analyzed of experimental research on the flow  
of gas moving with supersonic velocity in a conic channel.  
A method of calculation is presented. Diagrams. Reference  
is made to 3 Russian books (1948-1954).

Institution : Central Boiler and Turbine Institute

Submitted : No date

**AUTHORS:** Gukhman, A.A. (Professor, Dr. of Phys.Mathematical Science),  
Gandel'sman A.F. (Engineer) and Naurits L.N. (Engineer).

**TITLE:** On the Hydro-Dynamic Resistance in the Trans-sonic region of  
flow. (O gidrodinamicheskom soprotivlenii v transzvukovoy  
oblasti techeniya.) 114-7-3/14

**PERIODICAL :** "Energomashinostroyeniye" (Power Machinery Construction).  
1957, No.7, Vol.3, pp.10-14. (U.S.S.R.)

**ABSTRACT :** It is now established that at trans-sonic rates of flow in  
channels the resistance coefficient changes appreciably. These  
changes are so great that it becomes impossible to consider the  
resistance coefficient as a specific characteristic of the channel  
which can be assumed constant for a given value of Reynolds number.  
The article considers a system of calculation based on another  
form of quantitative concept of energy dissipation. This system  
leads to a new hydro-dynamic characteristic of the channel which,  
unlike the resistance coefficient, remains practically constant  
over the length at very high rates of flow. An expression is  
written down for the quantity of energy dissipated under conditions  
of adiabatic flow. This relationship forms the basis of all the  
subsequent deductions. Its special value consists in that entropy  
is a unique parameter of the condition of a moving medium, change  
in which can be directly associated with the quantity of energy

1/4

On the Hydro-Dynamic Resistance in the Trans-sonic region of flow.  
(Cont.)

114-7-3/14

dissipated. For what follows it is essential that in high speed flow change in entropy along the axis of the channel occurs slowly compared with changes in all other parameters of condition, particularly in conditions of supersonic flow in an expanding channel when the geometry has an appreciable influence. Such a relationship between the intensity of change of entropy on the one hand, and all the other parameters on the other, provide the basis for approximation of the actual course of change of entropy over the length in a linear manner. As is shown below this assumption is confirmed by analysis of experimental data. In the fundamental expression the thermal equivalent of mechanical work multiplied by the work of friction on an elementary section related to unit mass of the moving medium is equated to the product of the thermodynamic temperature and the corresponding change in entropy. For further work, this equation is rewritten in dimensionless parameters. It is shown that all the necessary data is available to compare the calculations with practice. Such a calculation has been made and will be published, and satisfactory agreement is found. A further magnitude is introduced to characterise the dynamic properties of the channel. The system of calculation based on the application of the new coefficient can be applied in practice only after fairly extensive experimental material has been accumulated

2/4

On the Hydro-Dynamic Resistance in the Trans-sonic region of  
flow. (Cont.)

114-7-3/14

so that the numerical value of the coefficient can be selected in each particular case. Unfortunately there are as yet no reliable quantitative data on the laws of frictional resistance in a channel at supersonic speeds. A general procedure of calculation is then described. The direct problem is then defined as, being given the geometry of the channel (including the law of change of section with length) and the hydraulic characteristics of the channel to find the distribution of flow parameters along the length. The succession of operations in the calculations is described. The reverse problem is defined as, being given the geometry of the channel, its hydrodynamic characteristics and the relative speed to find the section in which the speed acquires the given value. Again the procedure for making the calculations is described. The article then proceeds to examine the available experimental data setting out in the first place to verify experimentally the "linearity hypothesis" which is the basic idea of the system of calculation. Results of the calculation are given in Fig.3 in the form of a family of curves and good agreement is shown with experimental results. Thus the available data goes to show that the underlying

3/4

On the Hydro-Dynamic Resistance in the Trans-sonic region of  
flow. (Cont.)

114-7-3/14

assumptions of the new method are sound.

4/4 There are three figures and two literature references (Russian).

AVAILABLE :



GANDEL'SMAN, A. F.

"On Determination of Friction Work at a Gas Flow in Long Tubes."

Report submitted for the Conference on Heat and Mass Transfer, Minsk, BSSR, June 1961.

2:249  
S/110/61/004/009/008/013  
B10./E125

11.7430

AUTHORS: Gukhman, A. A., Gandel'sman, A. F.

TITLE: Use of an entropy method for determining the thickness of displacement of an adiabatic flow in a supersonic nozzle

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 4, no. 9, 1961, 73-75

TEXT: The adiabatic flow of a compressible fluid can satisfactorily be studied by the entropy method provided the velocities do not largely differ from the velocity of sound. The authors show a simple way for extending the application range of this method. The method is used to determine the thickness of displacement in the theory of two-dimensional flows. The adiabatic flow of a thermodynamically ideal gas in a supersonic nozzle of known shape is investigated. Pressure and temperature at the mouthpiece are known. Dissipative effects in the convergent part of the nozzle are neglected. In addition,  $\mu$  is known, and it is assumed that  $\mu = d\sigma/d\bar{x}$ , whereby the intensity of energy dissipation in the divergent part of the nozzle is determined. The thickness of displacement may be found by comparing a real flow with a certain fictitious one-dimensional flow having

Card 1/3

272h9  
S/170/61/004/009/008/013  
B104/B125

Use of an entropy method for...

a homogeneous velocity field in each cross section. The latter is supposed to be identical with the former as regards flow rate, velocity distribution along the axis, and static pressure. Such a comparison is physically significant for investigating a perfectly isentropic fictitious flow and a flow in which the state of the moving medium varies only in the core outside the boundary layer. Denoting the cross sections by  $F$  and  $F'$  and the diameters by  $D$  and  $D'$ , an axisymmetric channel will be given by:  $\delta^* = (D - D')/2$ ;  $\delta^*$  is the thickness of displacement. Thus, the problem is reduced to the determination of  $F'$  and  $F$ . Application of the entropy method permits an easy and simple solution of this problem. For a given value of  $\mu$ , one easily finds the degree  $f_s = F_s/F_*$  of extension for the equivalent isentropic flow, i.e., for a flow that has the same velocity distribution as the ideal one. In this manner, one obtains the desired pressure distribution and the distribution  $\lambda'$  of reduced velocities:  $P = P_s \exp(-\mu \bar{x})$  and  $1 - \frac{k-1}{k+1} \lambda'^2 = (P'/P_0)^{(k-1)/k}$ .  $f'$  ( $F' = f'F$ ) and  $f_s$  may be taken from tables of gas-dynamic functions. There are 1 figure and 1 Soviet reference.

Card 2/3

27249

Use of an entropy method for...

S/170/61/004/009/008/013  
B104/B125

ASSOCIATION: Institut khimicheskogo mashinostroyeniya, g. Moskva  
(Institute of Chemical Engineering, Moscow)

SUBMITTED: May 19, 1961

Card 3/3

~~L 10383-63~~ ~~AFMDC/ASD/SSD--Ps-4/Pd-4/Pr-4/Pu-4--WW~~ ~~EPR/EPA(b)/EPF(c)/EPF(n)-2/EMT(1)/BIS--AFITC/AMDC/~~  
ACCESSION NR: AP3003046

S/0170/63/000/006/0037/0044

AUTHOR: Gukhman, A. A.; Gandel'sman, A. F.; Naurits, L. N.; Usanov, V. V.

TITLE: Characteristic features of supersonic flows directly adjoining the transonic region

SOURCE: Inzhenerno-fizicheskiy zhurnal, no. 6, 1963, 37-44

TOPIC TAGS: transonic flow, supersonic nozzles, heat transfer, hydrodynamic theory

ABSTRACT: The relationship between heat transfer and hydrodynamic resistance in the transonic region of a gas flow has been investigated experimentally using a test section consisting of a water-cooled nozzle. The following parameters were measured: air-flow rate, static pressure along the nozzle length, stagnation temperature along the cross section before the test section, outside wall temperature of the nozzle, and amount of condensate. Thirteen test runs made

Card 1/2

L 10383-63

ACCESSION NR: AP3003046

covering three basic regimes for the temperature ranges 547.0--548.5K, 629.8--630.5K, and 698.5--699.0K. The results obtained are given in the form of graphs showing pressure and heat-flux distribution, temperature variations, distribution of the coefficient of hydraulic resistance, and of the Stanton number. It is shown that the passage through transonic velocity is accompanied by a disturbance in the normal form of the relationship between the intensity of heat transfer and the hydraulic resistance; beginning with the value of the thermal conductivity of the wall of the nozzle,  $\lambda = 1.35$ , the basic relationship of the hydrodynamic theory of heat transfer can be applied with accuracy sufficient for practical engineering problems. Orig. art. has: 5 figures, 12 formulas, and 1 table.

ASSOCIATION: none

SUBMITTED: 03Apr63

DATE ACQ: 22Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 007

OTHER: 000

ph/se

Card 2/2

GUKHMAN, A.A.; GANDEL'SMAN, A.F.

Letter to the editor. Izv. vys. ucheb. zav.; energ. 6  
no.9:122 S '63. (MIRA 16:12)

GANDEL'SMAN, A.F., kand. tekhn. nauk; NAURITS, L.N., inzh.; USAROV, V.I., inzh.

Studying heat exchange and resistance at near-sonic speeds. Trudy  
VNIIMASH no.9:125-137 '65. (MIRA 18:6)



GANDEL'SMAN, A.F., kand. tekhn. nauk; USANOV, V.V., inzh.; NAUPITS, L.N.,  
Inzh.

New data on heat exchange and hydrodynamic resistance in the  
nearsonic region of a gas flow. Trudy VIKKIMASH no.10:105-  
114 '65. (MIRA 18:9)

GANIYEVA, A.Kh.; GANDEL'SMAN, A.M.

New forms of activity of the Scientific and Technical Society  
and factory technical councils. Shvein.prom. no.3:27-28 Ky-Je  
'62. (MIRA 15:6)  
(Clothing industry--Technological innovations)

GANDEL'SMAN, A . O.

English Technical Reader on Food Insuustry. Moskva, Pishchepromizdat, 1948.



GANDEL'SMAN, B. I.

USSR/Medicine - Air

Medicine - Disinfection and Disinfectants

Nov 1947

"The Problem of Disinfection of the Air," B. I. Gandel'sman, R. M. Ginzburg, Central Scientific Research Disinfectant Institute, Ministry of Health of the USSR, 5 pp

"Zhur Mikrobiol, Epidemiol i Immunobiol" No 11

An account of experiments in three basic means of disinfecting the air: 1) by chemical agents, 2) by ultraviolet rays, and 3) by mechanical separation of microorganisms from the air.

PA 36T62

DAVIDE WILSON, B. I.

DAVIDE WILSON, B. I. "Methods of increasing the quality of disinfection of excrement in the case of intestinal infections and tuberculosis", Trudy Tsentr. nauchn. -issled. desinfekts. in-ta, Issue 5, 1949, p. 43-46.

SC: U-4631, 16 Sept 53, (Letopis 'Zhurnal 'nykt Staley, No. 24, 1949).

INDEXED, . 1.

SANDEL'YAN, D. I., KOVALEV, M. V., TIMOTICH, G. P. "Methods of laboratory control of the results of disinfection", (In index, second author: Kovalov, V. I.), Trudy Tsentr. nauch. -issled. dezinfekts. in-ta, Issue 5, 1949, p. 47-62.

SO: V-4631, 16 Sep 53, (Letopis 'Zhurnal 'nykt Statey, No. 24, 1949).

GANDEL'SMAN, B. I.

PA 65/49161

USSR/Medicine - Disinfection      Jun 49  
Tuberculosis Prevention

"Results of the Fifth Ukrainian Conference of Hygienists, Epidemiologists, Microbiologists and Infectionists," B. I. Gandel'sman, 2 pp

"Gig i San" No 6

Eleven reports on disinfection were made. G. M. Meyerson, Ukrainian Min of Pub Health, gave a report on the control of bacterial carriers, or-sanitized disinfection, tuberculosis control, and laboratory control of processes. A report was read (Vashkov) on DDT and hexachloride and the toxic properties of the latter were discussed. Other reports discussed malaria, dysentery, flies and other causes of infection, and defects in present methods.

65/49161



GANDEL'SMAN, B. I.

37513 Gandel'sman, B. I. Problema obessazashivaniya vozdukh. V SB; XII vsesoyuz. S'yezd gigiyenistov, epidemiologov, mikrobiologov i infektzionistov. T. I. M., 1949, S 118-22

SO: Letopis' Zhurnal'nykh Statey Vol. 37, 1949

GANDAL'SHIN, B. I.

GANDAL'SHIN, B. I. -- "Disinfection of Excrement in Intestinal Infections and Its Use in the Complex of Measures Against Typhoid." Sub 1/ Nov 52, Moscow Order of Lenin State U Ivan I. V. Leonovskoy. (Dissertation for the Degree of Doctorate in Medical Sciences).

SO: Vechernaya Moskva January-December 1952

1. GANDEL'SMAN, B.I. and TREGUBOV, A. N.
2. USSR (600)
4. Rats-Extermination
7. "Disinfection, disinsectization, and deratization." M. L. Turich, V. V. Solov'yeva.  
Reviewed by B. I. Gandel'sman, A. N. Tregubov. Gig.i san. Vol. 17 no. 10, 1952i
9. Monthly List of Russian Acce:sions, Library of Congress, February 1953, Unclassified.

GANDEL'SMAN, B. I.; YELISTRATOVA, Z. A. and KAVENOKI, F. Ya.

"The Effect of Desiccation on the Period of Survival of Hiss-Flexner  
Dysentery Bacilli," Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii,  
No 1, 1953.

Central Scientific Research Disinfection Institute

USSR/Medicine - Disinfection

Feb 53

"Problem of Organizing Control of the Effectiveness of Disinfection," B.I. Gandel'sman, Cent Sci Res Disinfection Inst

"Zhur Mikrobiol, Epidemiol, i Immunobiol" No 2, pp 71-74

Rapid laboratory control of disinfection can be best carried out on bacteria producing intestinal diseases, scarlet fever, and dysentery. It is more difficult in the case of anthrax or tuberculosis, because tests on animals are necessary. As selective nutrient media, *Bactocagar 2h* for dysentery, *bismuth-agar* for typhoid, and *Garo's 17 medium with gentian violet* for streptococci are used. Unfortunately, only a few USSR disinfection establishments located in large cities and equipped with laboratories are occupied with problems of disinfection control at present. Local sanitation-epidemiological stations, to which -- according to new regulations -- laboratories are subordinated should participate in this work. City and rayon labs should also participate.

246120

GANDEL'SMAN, B. I.

GANDEL'SMAN, B.I.

KAL'MANOVICH, B.L. (Moskva)

Textbook on disinfection edited by V.I.Vashkov and B.I.Gandel'sman,  
published 1952. Reviewed by B.L.Kal'manovich. Fel'd. i akush. no.  
6:62-63 Jo '54. (MLRA 7:7)  
(DISINFECTION AND DISINFECTANTS)

GANDEL'SMAN, B.

"Collection of official instructions and methodological material on  
disinfection," edited by V.I. Vashkov. Reviewed by B. Gandel'sman.  
Gig. 1 san. no. 11:59-60 M '54. (MLRA 7:12)  
(DISINFECTION AND DISINFECTANTS)

GANDEL'SMAN, B. I.

GANDEL'SMAN, B. I. --"Disinfection of Excretions in Intestinal Infections and Its Use in the Measures of Dysentery Control." \*(Dissertations for Degrees in Science and Engineering Defended at USSR Higher Educational Institutions) Min Public Health USSR, Central Inst for the Advanced Training of Physicians, Moscow, 1955.

SO: Knizhnaya Letopis' No.31, 30 July 1955.

\*For the Degree of Doctor of Medical Sciences.



GANDEL'SMAN, B.I., dotsent; SVISTOVA, A.V.; KULAKOVA, M.K. (Moskva)

Deficiencies in the control of dysentery. Sov. zdrav. 14 no.6:22-26  
N-D '55. (MIRA 9:2)

(DYSENTERY, BACILLARY, prevention and control,  
in Russia)

GANDEL'SMAN, Berta Izrailevna, dotsent; RYZHOV, Anatoliy Alekseyevich;  
ZHUKOV, G.I., redaktor; BEL'CHIKOVA, YU.S., tekhnicheskiy redaktor

[Organization of disinfection in the U.S.S.R.] Organizatsiia dezinfektsionnogo dela v SSSR. Moskva, Gos. izd-vo med. lit-ry, 1956 94 p.  
(Biblioteka vracha-organizatora. Lektsii po organizatsii zdavookhraneniia dlia vrachei. Organizatsiia sanitarno-epidemiologicheskogo dela v SSSR, lektsiia 5) (MLRA 9:7)  
(DISINFECTION AND DISINFECTANTS)

GANDEL'SMAN, S.

ZHDANOV, V.; KHRISTOV, L.; MURAV'YEV, M.; RYZHOV, A.; VASHKOV, V.; PEDOSOVA, A.  
POGODINA, L.; KLECHETOVA, A.; SUBBOTIN, A.; ZAKHAROVA, Ye.; GANDEL'S-  
MAN, S.; SAZONOVA, N.; ZEVAKINA, I.; KUDRINSKIY, I.; MISKAROV, D.;  
KHANENYA, F.

Professor A.N.Tregubov; obituary. Gig. i san. 21 no.10:63 0 '56.  
(MLRA 9:11)  
(TREGUBOV, ALEKSANDR NIKOLAEVICH, 1888-1956)

USSR/Microbiology - Microbes Pathogenic for Man and Animals. F  
Bacteria. Bacteria of the Intestinal Group.

Abs Jour : Ref Zhur Biol., No 22, 1958, 99413

Author : Gandel'sman, B.I.

Inst : Central Scientific Research Disinfection Institute.

Title : Variability of the Pathogens of Intestinal Infections  
(Typhoid and Dysentery) During Their Survival on the  
Surface of Various Objects Soiled by Infected Substrata

Orig Pub : Tr. Tsent. n.-i. dezinfekts. in-ta, 1957, vyp. 10, 107-  
118

Abstract : Saliva and feces infected with museum cultures of bac-  
teria of Flexner's dysentery and typhoid fever were trans-  
ferred upon plywood, wooden, glass and wallpaper surfaces.  
Samples were taken from the surfaces with a pipette con-  
taining a sterile meatpeptone broth. The broth was

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USSR/Microbiology - Microbes Pathogenic for Man and Animals.  
Bacteria. Bacteria of the Intestinal Group.

F

Abs Jour : Ref Zhur Biol., No 22, 1958, 99413

lightly spread with the pipette and then again aspirated for immediate insemination on an enriched medium. From vertical and cracked surfaces the washings were taken with a tampon moistened in broth which was then immersed in the enriched medium. It turned out that the death of the microbes on the experimental surfaces depended upon the massivity of the infection; for the typhoid bacteria, it occurred in about 26 days, and that of dysenteric bacteria in about 66 days. The morphological, biochemical and serological properties of the isolated microbes remained unchanged during the whole period of observation, while the virulence decreased markedly in the typhoid microbes and almost completely disappeared in the dysenteric bacteria. -- A.N. Shibayeva

Card 2/2

USSR/Microbiology - Microbes Pathogenic in Man and Animals.

F.

Abs Jour : Ref Zhur - Biol., No 15, 1958, 67272

Author : Gandel'sman, B.I., Ryzhov, A.A., Khudadov, G.D.

Inst : Central Scientific Research Disinfection Institute.

Title : An Analysis of the Functioning of Disinfection Stations  
as Concerns the Struggle with and Prophylaxis of Infectious Diseases.

Orig Pub : Tr. Tsentr. n.-i. dezinfekts. in-ta, 1957, No 10, 311-319.

Abstract : No abstract.

Card 1/1

GANDEL'SMAN, Berta Izrailevna; MIN'OVICH, K.G., red.; GOL'DYAYEV,  
N.A., tekhn.red.

[Disinfection] Dezinfektsionnoe delo. Moskva, Gos.izd-vo  
med.lit-ry. 1959. 309 p. (MIRA 13:3)  
(DISINFECTION AND DISINFECTANTS)

VASHKOV, Vasilii Ignat'yevich, red.; GANDEL'SMAN, B.I., red.

[Textbook for disinfectors] Posobie dlia dezinfektorov. Moskva,  
Medgiz, 1959. 338 p. (MIRA 13:8)  
(DISINFECTION AND DISINFECTANTS)



GANDEL'SMAN, B. I.

"Basic problems of organization of the disinfection service in the USSR and the immediate problems and prospects of its development."

Report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists. 1959

GANDEL'SMAN, Boris Markovich; SYCH, Boris Zinov'yevich; MURAKHYVA, A.K.,  
red.; BAKHTIYAROV, A., tekhn.red.

[Spectrum analysis in the manufacture of machinery] Spektral'nyi  
analiz v mashinostroenii. Tashkent, Gos.isd-vo Uzbekskoi SSR,  
1959. 54 p.  
(Spectrum analysis) (Machinery industry) (MIRA 14:3)

GANDEL'SMAN, B. V.

The use of wood waste in the railroad industry. Moskva, Gos. tranep. znelcor. izu-  
vo, 1943. 47 p. (V pomoshch'stroiteliam zheleznykh dorog) (50-47258)

TP996.W6G3

AUTHORS: Vostrov, G. A., Gandel'sman, I. L. SOV/32-24-10-54/70

TITLE: An Apparatus for Measuring the Small Values of the Specific Electric Conductivity of Liquids (Pribor dlya izmereniya malykh znacheniy udel'noy elektroprovodnosti zhidkikh sred)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 10, pp 1284-1285 (USSR)

ABSTRACT: An apparatus was devised which makes possible measurements of the electric conductivity of the order  $10^{-11} \text{ Ohm}^{-1} \text{ cm}^{-1}$ . This apparatus operates with a. c. with a compensation of the capacity loads formed. A basic scheme is given. From the description it may be seen that the stabilized mains voltage is connected to a transformer the second winding of which has a ground. The apparatus contains a lamp voltmeter of the type LV-9. The specific conductivity of the liquid is determined according to a formula. Measurements carried out with this apparatus of amyl acetate and glycerin at  $25^{\circ}$  gave their specific electric conductivity as  $5,5 \cdot 10^{-10}$  or  $1,1 \cdot 10^{-8} \text{ Ohm}^{-1} \text{ cm}^{-1}$ , respectively. The measuring error is 6%. The experiments carried out to verify the reproducibility of the measurements yielded good results. The apparatus described will be used at

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SOV/32-24-10-54/70  
An Apparatus for Measuring the Small Values of the Specific Electric  
Conductivity of Liquids

the laboratory of the "Svetlana" factory for controlling the  
electric conductivity of organic solvents and suspensions  
produced on the basis of these solvents, and in the production  
of radio tubes.  
There is 1 figure.

Card 2/2

L. ORLOV-67 EWP(m)/EWP(e)/EWP(t)/ETI LJP(e) JU/AM/CA/10/AT/AS/TH  
ACC NR: AT6027154 (A) SOURCE CODE: UR/0000/65/000/000/0257/0264

AUTHOR: Avgustinak, A. I.; Vigdergauz, V. S.; Gandol'sman, I. L.; Gorfunkel', L. V.; Gropyanov, V. M.; Drozdotskaya, G. V.

ORG: none

TITLE: Use of a cermet made of tungsten and aluminum oxide in the preparation of cathodic heaters of electron tubes

SOURCE: AN SSSR. Otdoleniye obshchey i tekhnicheskoy khimii. Issledovaniya v oblasti khimii silikatov i okislov (Studies in the field of chemistry of silicates and oxides). Moscow, Izd-vo Nauka, 1965, 257-264

TOPIC TAGS: high temperature cermet material, tungsten, aluminum oxide

ABSTRACT: The aims of the study included (1) the selection of W-Al<sub>2</sub>O<sub>3</sub> cermet compositions suitable for the preparation of cathodic heaters, (2) a study of their physical properties (resistivity as a function of temperature, emissivity, strength, porosity, etc.) as functions of the composition and processing. The influence of the regularity of distribution of the metal (tungsten) and oxide (α-Al<sub>2</sub>O<sub>3</sub>) particles and degree of dispersion of the starting materials on the properties of the sintered cermets was determined. The sintering was found to worsen with rising tungsten content: the shrinkage and relative density decrease, and the porosity increases. The mechanical and elastic properties are determined by the porosity. The optimum combination of

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L 08104-67  
ACC NR: AT6027154

properties corresponds to a cermet composition containing 50-75% W and 50-30%  $Al_2O_3$ , and this composition is recommended for applications in industry after final improvements in the process of its preparation are made. Orig. art. has: 5 figures, 5 tables and 1 formula.

SUB CODE: 11/ SUBM DATE: 08Feb65/ ORIG REF: 005/ OTH REF: 002

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GANDEL'SMAN, I.M., inzh.; BONDARENKO, N.A., inzh.; BELOSLUDOV, A.B.,  
inzh.

Programmed, multiple-position, charge mixture proportioning device.  
Lit. proizv. no.12:14-15 D '65. (MIRA 18:12)



ACC.NR: AP7007580

SOURCE CODE: UR/0118/66/000/000/000/000

AUTHOR: Ruppe, A. S. (Engineer); Gandel'sman, I. P. (Engineer)

ORG: none

TITLE: Specialized computer for calculation of optimal parameters of technological processes

SOURCE: Mekhanizatsiya i avtomatizatsiya proizvodstva, no. 9, 1966, 41-44

TOPIC TAGS: computer, coal

SUB CODE: 09, 08

ABSTRACT: An analysis is made of a specialized computer designed to solve the problem of increasing the output of a coal treatment plant. The computer consists of a section for input of initial data in the form of enrichment curves, sections for computing values of the coordinates of these curves, units for input of values of the coefficients  $q_i$  and the assigned value of average ash content of the overall concentrate, the decision element, the null-balance device, and the output unit. The computer works as follows: the values of average ash content of the concentrate and coefficient  $c_i$  are loaded into the computer to determine the fraction of each of the classes of coal in percent of the total. During the process of solution, the values of the coordinates of the enrichment curves are calculated at points of

Card 1/2

UDC: 681.14:662.74  
0928/1515

ACC NR: AP7007580

equal derivatives  $M'_1 = M'_2 = M'_3$  and the differential equations are solved at these points. When equality is achieved between the two halves of the equation, the null-balance device operates and the computing process is halted. The output device can be used to develop all the data of interest to the operator, such as total concentrate yield, yield of concentrate by classes, etc. Orig. art. has: 4 figures and 3 formulas. [JPRS: 39,779]

Card 2/2

YAGUPOL'SKIY, L.M.; GANDEL'SMAN, I.Z.

Diazastyryls with fluorine-containing substituents. Zhur.ob.khim.  
33 no.7:2301-2307, J1 '63. (MIRA 16:8)

1. Institut organicheskoy khimii AN UkrSSR.  
(Diazo compounds) (Dyes and dyeing)

YAGUPOL'SKIY, L.M.; CANDEL'SMAN, L.Z.

Effect of substituents on the color of N,N-dialkylaminoazo dyes  
and their salts. Zhur. ob. khim. 35 no.7:1252-1260 J1 '65.  
(MIRA 18:8)

1. Institut organicheskoy khimii AN UkrSSR.